



# **Local Hazard Mitigation Plan ANNEX**

## **City of San Carlos**

### **Introduction**

The City of San Carlos is a small-sized city in San Mateo County, California. San Carlos, incorporated in 1925, is situated on the San Francisco Peninsula midway between San Francisco and San Jose. The municipality of San Carlos covers 5.38 square miles. The City has a population of 27,900 people, based on the 2000 census<sup>1</sup>. Several San Carlos businesses play an important role in providing regional services, some of the largest employers in the non-manufacturing area are: San Mateo County Transportation Authority, Allied Waste Services, a large scale refuse disposal and recycling and Pacific Gas and Electric. These businesses play an important role in the surrounding communities. The total General Fund Operating Budget is \$22,996,019. The total City Operating budget for all funds is 29,304,462 and Capital is 7,080,269 for all funds. The City employs 117 full time, 82 part time and 7 contract positions. While the City provides local police services, the fire services are supplied by South County Fire Authority, a Joint Powers Authority.

### **The Planning Process**

The process of preparing this plan was familiar to the City of San Carlos. The City has a Safety Element to its General Plan, last updated in 2000 that includes a discussion of fire, earthquake, flooding, and landslide hazards. In addition, the City routinely enforces the requirements of the California Environmental Quality Act (CEQA) requirements (which, since 1988, have required mitigation for identified natural hazards). The City's effort has focused on building on these pre-existing programs and identifying gaps that may lead to disaster vulnerabilities in order to work on ways to address these risks through mitigation.

Many of the activities conducted by the City were fed into the planning process for the multi-jurisdictional plan. The City participated in various ABAG workshops and meetings, including the general "kick-off" meeting. In addition, the City has provided written and oral comments on the multi-jurisdictional plan. Finally, the City provided information on facilities that are viewed as "critical" to Association of Bay Area Governments.

City staff met on April 19, 2005 to identify and prioritize mitigation strategies appropriate for the City. Departments involved in this meeting included the City Managers Office, Police

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<sup>1</sup> For complete Census information on this city, see <http://www.bayareacensus.ca.gov/>.

Department, Building Department, Public Works, Parks and Recreation Department, Planning Department and South County Fire Authority. At this meeting, the general priorities and appropriate City departments were identified. The City placed the DRAFT Hazard Mitigation Plan with strategies prioritized and selected by City staff on its website, providing opportunity for the public to comment. The resolution adopting the plan and strategies was approved by the City Council on December 12, 2005. The mitigation strategies are intended to be supplementary information to the Safety Element of the General Plan. The next time the Safety Element is updated, this document will then be incorporated into its text.

## **Hazard and Risk Assessment**

The ABAG multi-jurisdictional Local Hazard Mitigation Plan, to which this is an Annex, lists nine hazards that impact the Bay Area, five related to earthquakes (faulting, shaking, earthquake-induced landslides, liquefaction, and tsunamis) and four related to weather (flooding, landslides, wildfires, and drought). These hazards also impact the community of San Carlos, except for surface faulting. Surface faulting is not a hazard in the City of San Carlos because no active faults are located in the City.

While the City has undertaken a number of general hazard mapping activities since the first Safety Element was prepared by the City, all of these maps are less detailed and are not as current as those shown on the ABAG website at <http://quake.abag.ca.gov/mitigation/>. With the exception of the Wildland Urban Interface – Fire Threatened Communities map which shows San Carlos as being at risk in the area to the east of El Camino Real. Based on discussions with South County Fire Authority, the map should not be used for planning in this portion of the City. The emphasis should be based on the San Mateo County Wildfire Maps until further mapping, or revisions of this mapping, is completed by the California Department of Forestry.

Information on disasters declared in San Mateo County is at <http://quake.abag.ca.gov/mitigation/disaster-history.html>.

The City examined the hazard exposure of City urban land based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of the 3,617 urban acres in the City,

- ◆ Earthquake faulting – No active faults run within the city so rupture of a fault is not a direct concern.
- ◆ Earthquake shaking – 3,339 acres are in the highest two categories of shaking potential.
- ◆ Earthquake-induced landslides – the California Geological Survey has not completed mapping of this hazard in the City of San Carlos.
- ◆ Earthquake liquefaction – 529 acres are in areas of high or very high liquefaction susceptibility.
- ◆ Tsunamis – While tsunamis may be a hazard in the City of San Carlos, the mapping of the inundation area has not been completed at this time.
- ◆ Flooding – 230 acres are in the 100-year flood plain, while an additional 312 acres are in other flood-prone areas.
- ◆ Landslides – 20 acres are in areas of existing landslides.

- ◆ Wildfires – 79 acres are subject to high, very high, wildfire threat areas while there are no areas listed as extreme wildfire threat.
- ◆ Dam Inundation – No dams exist within the city.
- ◆ Drought – all 3,617 acres are subject to drought.

The City also examined the hazard exposure of infrastructure based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of the 3,223 miles of roadway in the City,

- ◆ Earthquake faulting – No active faults run within the city so rupture of a fault is not a direct concern.
- ◆ Earthquake shaking – 2,889 miles of roadway are in the highest two categories of shaking potential while another 271 are in the next highest category.
- ◆ Earthquake-induced landslides – the California Geological Survey has not completed mapping of this hazard in the City of San Carlos. However, this is unlikely to be an issue because only one mile of roadway is located within existing landslide areas.
- ◆ Earthquake liquefaction – 17 miles of roadway are in areas of high, or very high liquefaction susceptibility.
- ◆ Tsunamis – While tsunamis may be a hazard in the City of San Carlos, the mapping of the inundation area has not been completed at this time.
- ◆ Flooding – 9 miles of roadway are in the 100-year flood plain, while an additional 9 miles are in other flood-prone areas.
- ◆ Landslides – Only one mile of existing roadway is in areas of existing landslides.
- ◆ Wildfires – there are no miles of roadway that are subject to very high, or extreme wildfire threat.
- ◆ Dam Inundation – no roadways are in an area subject to dam inundation.
- ◆ Drought – is not a hazard for roadways.

Finally, the City examined the hazard exposure of critical health care facilities, schools, and city-owned buildings based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickcrit.html>. Of the critical facilities in the City,

- ◆ Earthquake faulting – No active faults run within the city so rupture of a fault is not a direct concern.
- ◆ Earthquake shaking – all 8 schools, both fire stations, and the City Hall are in the highest two categories of shaking potential.
- ◆ Earthquake-induced landslides – the California Geological Survey has not completed mapping of this hazard in the City of San Carlos.
- ◆ Earthquake liquefaction – while no critical health care facilities, or schools are in areas of moderate, high, or very high liquefaction susceptibility, four bridges and interchanges and 9 Critical Facilities are located in these areas.
- ◆ Tsunamis – While tsunamis may be a hazard in the City of San Carlos, the mapping of the inundation area has not been completed at this time.
- ◆ Flooding – One school and 2 Critical Facilities are within the 500-year flood plain and one Critical Facility (sewer pump station) is within the 100-year flood plain. No critical health care facilities are in either the 100-year flood plain or the 500-year flood plain areas.

- ◆ Landslides – no critical health care facilities are within landslide areas.
- ◆ Wildfires – 8 schools are within the low threat areas while one city owned critical facility lies within the high threat area.
- ◆ Dam Inundation – no critical health care facilities, schools, or city-owned facilities are in an area subject to dam inundation.
- ◆ Drought – Drought will not affect city buildings directly. However, the city does not operate a water-supply distribution system.

While there are portions of the City located in flood-prone areas, there is only one repetitive loss property in the City based on the information at <http://quake.abag.ca.gov/mitigation/pickflood.html>.

The City plans to work with ABAG during 2005 - 2006 to improve the risk assessment information being compiled by ABAG by providing information on unreinforced masonry buildings and soft-story apartments located in the City.

Drought, though a potential problem in the City, is not fully assessed. The City will work with ABAG and various water supply agencies on this issue.

The City plans to work with ABAG to develop specific information about the kind and level of damage to buildings, infrastructure, and critical facilities which might result from any of the hazards previously noted. The ABAG Annex states that ABAG will be doing this work in 2005 through early 2006.

As these impacts are not fully developed, the City has reviewed the hazards identified and ranked the hazards based on past disasters and expected future impacts. The conclusion is that earthquakes, wildfire, and landslides pose a significant risk for potential loss.

## **Mitigation Activities and Priorities**

As a participant in the ABAG multi-jurisdictional planning process, City of San Carlos staff helped in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan. The list was discussed at a meeting of the City Managers Office, Police Department, Building Department, Public Works, Parks and Recreation Department, Planning Department and South County Fire Authority on April 19, 2005. At the meeting, all of the mitigation strategies were reviewed. The tentative decision on priority was made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or our heritage. Currently only two strategies have been given a high priority, however several are shown as not yet considered. As these strategies are evaluated, it is likely that they may be revised to a high priority. Costs have not been placed on the two high priorities. Once a complete assessment has been made, a cost will then be assigned.

Over time, we are committed to developing better hazard and risk information to use in making those trade-offs. We are not trying to create a disaster-proof region, but a disaster-resistant one. In addition, several of the strategies are existing City programs.

These draft priorities were submitted to the City Manager for review. The draft priorities were provided to the City Council for their review. The public was provided with an opportunity to comment on the DRAFT priorities via our website. The final strategies (as shown in the attached Table) will become an *Implementation Appendix* to the City's *Safety Element* the next time the General Plan is amended.

## **The Plan Maintenance and Update Process**

The Emergency Operations Coordinator, within the City of San Carlos Police Department will ensure that **monitoring** of this Annex will occur. The plan will be monitored on an on-going basis. However, the major disasters affecting our community, legal changes, notices from ABAG as the lead agency in this process, and other triggers will be used. Finally, the Annex will be a discussion item on the agenda of the meeting of City department heads at least once a year on the anniversary of its adoption. At that meeting, the department heads will focus on **evaluating** the Annex in light of technological and political changes during the past year or other significant events. This group will be responsible for determining if the plan should be updated.

The City of San Carlos is committed to reviewing and updating this plan annex at least once every five years, as required by the Disaster Mitigation Act of 2000. The Emergency Operations Coordinator within the City of San Carlos Police Department will contact ABAG four years after this plan is approved to ensure that ABAG plans to undertake the plan update process. If so, the City again plans to participate in the multi-jurisdictional plan. If ABAG is unwilling or unable to act as the lead agency in the multi-jurisdictional effort, other agencies will be contacted, including the County's Office of Emergency Services. Counties should then work together to identify another regional forum for developing a multi-jurisdictional plan.

The **public** will continue to be involved whenever the plan is updated and as appropriate during the monitoring and evaluation process. Prior to adoption of updates, the City will provide the opportunity for the public to comment on the updates. A public notice will be posted prior to the meeting to announce the comment period and meeting logistics.